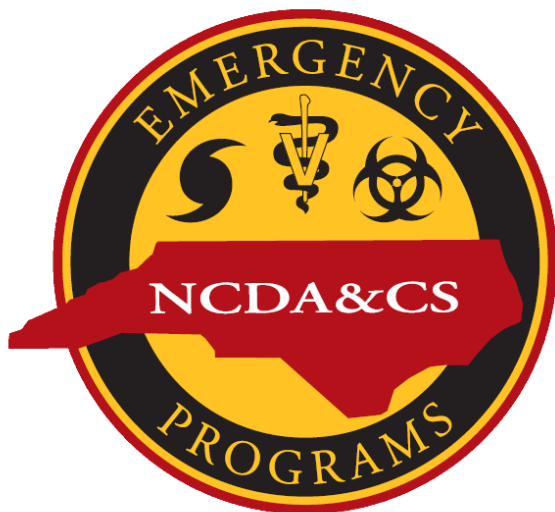


Emergency Programs Division Accomplishment Report 2013



**NC Department of Agriculture & Consumer Services
Steve Troxler, Commissioner**

For the NCDA&CS Emergency Programs Division, 2013 was a year of focusing on national response template development for natural disasters, animal disease response and radiological events; interdepartmental web-based tool design and refinement; and continued professional development for the Agriculture All-Hazards Incident Management Team and Agriculture Emergency Response Teams. Emergency Programs worked across Divisions and with external partners to continue response and recovery capacity building for the food and agriculture sector. State Homeland Security funding was redirected to assist with security enhancements to the NC State Fair and Mountain State Fair as the Department continues efforts to improve the safety of the public at special events hosted on its property. Staff inspected animal contact exhibits at sanctioned agricultural fairs for compliance with Aedin's Law, while also continuing their educational efforts with fair managers and exhibitors regarding non-contact animal exhibits. Staff participated on a number of teams and task forces working with federal, state, county, local and industry partners on a variety of one-health veterinary and response and recovery issues.

2013 HIGHLIGHTS

- Non-Governmental Organizations Sheltering Training and Rescue Workshop
 - Agricultural All Hazards Incident Management Team and Agricultural Emergency Response Team Development
 - NC Foreign Animal Disease (FAD) and Zoo Coordination Project
 - A One Medicine Approach to Pesticides
 - Swine Disease Mapping Project
 - Enhancements to the GRID Implementation for Food & Drug: Food Firms and Feed
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INCIDENTS & EVENTS

1. Natural Disaster Preparedness: Each year, EP prepares the North Carolina Department of Agriculture & Consumer Services for the hurricane season with several activities to improve readiness. In 2013, these activities included: organizing the Agriculture Emergency Operations Center activation exercise; participating in Web-based Emergency Operations Center trainings with state and local jurisdictions; updating the State Emergency Operations Plan with agricultural information; participating in statewide SERVNC and NCEM disaster exercises including a state-wide flood exercise; educating partners on preparedness activities (NCVRC newsletter, EP website, updates to divisions and partners); and more.

TRAINING, EDUCATION & OUTREACH

2. Training of NC Veterinary Response Corps: EP staff has continued to train veterinarians, veterinary technicians, students and other animal care providers throughout the state as NCVRC responders to work as part of our State Agricultural Response Team. Licensed veterinarians and technicians were trained at the NC Veterinary Conference in November. Students in their final year of the veterinary technician program at Asheville Buncombe Community College were trained in December. At the NCVRC trainings, EP personnel have trained participants on foreign animal disease response plans, biosecurity protocols, the practice of donning and doffing personal protective equipment, sheltering protocols, emergency management concepts and operations and public health topics.

An EP veterinarian provided training to third-year veterinary students enabling them to graduate as credentialed disaster-response personnel. The NC State University College of Veterinary Medicine Disaster Response Credentialing Program was the first of its kind in the nation and serves as a template for other vet schools. As part of their required curriculum, students are trained in foreign animal disease response, Incident Command System, natural disasters including hurricane response, biosecurity, personal protective equipment and hazardous materials awareness. After completing the training and registering in SERVNC, each student will be a credentialed responder in the NCVRC. An additional training was added to the program in the use of the CAMETs for local and regional sheltering response. In response to presentations by EP veterinarians at national meetings, there are currently efforts underway to replicate this program across the nation at other vet schools.

3. Annual AgEOC Activation Exercise: On Aug. 13, 2013 EP hosted the NCDA&CS annual AgEOC activation. This exercise brought together representatives from NCDA&CS, USDA, NC Emergency Management, NC Cooperative Extension and NC State Agricultural Response Team. Agriculture Commissioner Troxler opened the exercise with comments highlighting the diversity of agricultural response that might be needed following a disaster of any type, focused primarily on the hurricane season. Exercise participants received presentations from NCDA&CS partners including the NC Forest Service, Food and Drug Protection and Public Affairs divisions as well as outside partners including North Carolina Emergency Management and NC SART. The NCFS presentations introduced the aerial sketch mapping tool and the urban forest strike team response concepts to the participants, while the Food and Drug Protection Division focused on development of rapid response capability to prevent human and animal related illness-following a natural disaster. NCDA&CS Public Affairs Division provided an update on the newly revamped NCDA&CS disaster webpage that makes disaster related information more accessible to NC's agriculture entities. NCEM provided an update of WebEOC, the disaster response, web-based, management platform and the tools available to assist NCDA&CS and its partners within that application. Local meteorologist Bill Reh again graciously provided updates on current climatology forecasts and on hurricanes intensity and frequency based on 2013 modeling and predictions. NC SART gave a brief update on county preparedness initiatives and provided a box lunch so participants could continue preparedness discussions at the exercise's conclusion. The annual AgEOC activation exercise served to connect response partners in advance of the hurricane season.

4. Non-Governmental Organizations Sheltering Training and Rescue Workshop: Emergency Programs conducted a sheltering and rescue workshop with the goals of furthering the partnerships between state and national non-governmental organizations that respond to natural and manmade disasters that would require animal sheltering and rescue. Attending were representatives from NC Animal Control, NCDA&CS Emergency Programs and the National Animal Rescue and Sheltering Coalition. Discussion centered on how North Carolina efforts could be supported by out-of-state NGO's, as well as how training partnerships could be expanded. A MOU with NARSC was signed with NCDA&CS Emergency Programs to guide activation and response partnering with the organizations that are members of NARSC.

5. ICS Training: In 2013, EP conducted Incident Command System training to enhance NCDA&CS departmental readiness for disaster and emergency response. Four regional ICS 100/200 classes were conducted in January in Fletcher, Greensboro, Raleigh and Kinston, targeting newly hired employees and career staff with expanded responsibilities. EP also

facilitated and conducted in cooperation with NCFS an ICS 402 course for all NCDA&CS executive staff in March. Additionally EP conducted ICS 100/200 training for NCDA&CS employees in November for the Agronomic Division and other staff in Raleigh. In preparation for advanced ICS training in 2014, EP conducted ICS 300 training in December for Food and Drug Protection Division rapid response team staff in Raleigh.

6. County and State Fairs: Aedin's Law regulates the permitting of contact animal exhibits at sanctioned agricultural fairs in North Carolina. The rules outlining the implementation of this law went into effect at the beginning of the 2006 fair season. In 2013, EP staff made site visits or phone consultations to many of the fairs prior to fair season to discuss the permitting process, answer questions and address issues related to Aedin's Law compliance. There continue to be fewer questions or issues each year as a result of the work staff has done educating fair managers and exhibitors. However, a concerted effort is still needed to ensure that challenges associated with new exhibits at a fair are addressed and that exhibitors new to North Carolina are aware of the rules and regulations. Attending the NC Fair Convention and State Fair Livestock Superintendents' meeting are two venues for continued interaction with fair managers and exhibitors.

EP staff attended a consumer protection training organized by the International Association of Fairs and Expos and designed to help fairs understand enteric pathogens.

EP staff also participated on the study committee that reviewed measures in place during the 2012 Cleveland County Fair intended to reduce the risk of disease transmission associated with animal exhibits, especially those intended for public contact. The committee worked to identify what, if any, additional measures should be implemented at upcoming fair events to further reduce that risk.

7. Foreign Animal Disease Diagnostician Course: In June, EP utilized funding from the Veterinary Division for one veterinarian to attend the two-week USDA Foreign Animal Disease Diagnostician course at the Plum Island Animal Disease Center in Plum Island, NY. This course utilizes hands on labs and lectures to teach technical skills and information related to foreign animal disease investigation and diagnosis for participants.

8. NC Veterinary Conference: The NCVC Public Practice Committee, chaired by an EP veterinarian, prepared the 2013 agenda for the Public Practice Track. Topics included: An Introduction to the NC Veterinary Response Corps; One Medicine and Animal Health; Two Vaccination/Rabies Q&A sessions; Update on E. coli Outbreaks and Lessons Learned; Veterinary Accreditation Training: Overview of Foreign Animal, USDA Program, and Reportable Diseases; Updates in Veterinary Accreditation: Forms of Official Animal Identification and Traceability; and Biosecurity for Animal Response and the Use of PPE: Audience Participation Workshop. The 2013 NCVC Public Practice Track, held in November, was also a NCVRC training opportunity during which participants were encouraged to register in SERVNC, the statewide volunteer database.

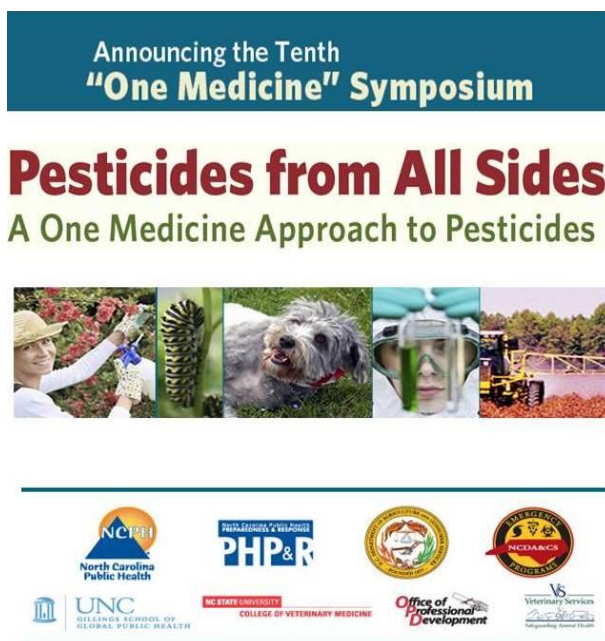


9. EP Education and Outreach: As part of EP's outreach and education, EP hosted information booths at several venues to inform attendees about emergency preparedness and response related to agriculture. Events included the Southern Farm Show in February and Stormfest in June. The CAMETs were also displayed at the National Weather Service & Natural History Museum's Stormfest in June.

10. Army Civil Affairs Unit Training: EP staff conducted training events with Army Civil Affairs Units preparing for deployment to the Middle East and the Special Warfare Center & School at Ft. Bragg. Trainings focused on agriculture practices and concerns including the significance of biosecurity for protection from zoonoses and potential foreign animal diseases traveling back to North Carolina. The training in partnership with Cooperative Extension, stressed the economic impact of FADs to state and national agriculture. It also coordinated mutual disaster support to local EM and law enforcement for their animal support issues. This allowed collaboration with the US Army's Public Health Veterinarian for the district.

11. Sheltering/CAMET Training: EP conducted two day sheltering and animal response training in April for the Madison County CART team focused on multi-hazard response to a wide range of potential challenges. Additionally in December, EP staff conducted CAMET trainings for the Piedmont Emergency Animal Response Team, a multi-county CART partnership that includes Alamance, Caswell, Davidson, Forsyth, Rockingham, Stokes and Yadkin counties. The training was conducted to cover animal sheltering options in disasters and utilization of the CAMET assets. Training included display and hands on set-up with the supplies included in the CAMET.

12. 2013 One Medicine Symposium: The Tenth "One Medicine" Symposium, Pesticides from All Sides: A One Medicine Approach to Pesticides was held on Dec. 12, 2013. The event was hosted by the NC Department of Health and Human Services, Division of Public Health and NCDA&CS EP Division with support from NC State University College of Veterinary Medicine, UNC Gillings School of Global Public Health, and USDA APHIS Veterinary Services. The program focused on the history, regulation, current uses and impact of pesticides related to human, animal and environmental health. The symposium is designed to encourage human, animal, and environmental health professionals improve awareness and understanding of the topics from a One Medicine perspective and to foster objective, intellectual discussion across disciplines. With 217 participants, audience members included physicians, nurses, veterinarians, veterinary technicians, agriculture and public health professionals, military personnel, wildlife professionals, environmental health specialists, pesticide applicators, educators and others. Continuing Education credits were offered for various professionals through the Centers for Disease Control and Prevention and NC state boards. CE credits included Continuing Medical Education for physicians, Continuing Nursing



Education for nurses, CE for veterinarians and veterinary technicians, CE for environmental health specialists, and CE for pesticide applicators.

13. Meat and Poultry Inspection Training: EP staff participated in training and site visits with Meat and Poultry Inspection Division to become familiar with meat inspections from a veterinary perspective. Training was conducted in November with six veterinarians, EP staff and MPID staff. There were several site visits conducted with MPID in late 2013 and more scheduled for early 2014. The goal of the training and site visits is to build veterinary capability for MPID when needed and to add capacity to response post disaster if needed.

14. NC Eastern District Public Health Association Conference: EP presented to the NC EDPHA conference on the use of the incident command system in disaster events to overcome some of the response challenges associated with rapidly evolving and cascading events. The presentation also focused on the necessity of a one-medicine approach for public and animal health before, during and after event impacts.

EXERCISES

15. Fixed Nuclear Plant Exercises: During April 29 – May 1 the Shearon Harris Nuclear Plant Ingestion Pathway Zone exercise, evaluated by federal agencies with consequences for any deficiencies identified, involved EP staff in the implementation of response plan components including food commodity contamination, environmental sample collection and a county reception center (an evacuation check point).

On August 6, EP staff participated in the McGuire Nuclear Power Plant Exposure Pathway Zone exercise conducted at the McGuire Nuclear Station in northern Mecklenburg county. EP staff provided guidance for agricultural infrastructure issues during the FEMA and Nuclear Regulatory Commission federally graded portion of the exercise as members of the response team assembled at the NCEM Western Branch Regional Coordination Center in Hickory. The main agricultural focus for the event was on protection of animals and feed supplies in the exposure path zone in accordance with current plans and procedures if a nuclear release were to occur.

In October 2013, EP staff participated in an Ingestion Pathway Zone exercise for the Watts Bar Nuclear Plant located in eastern Tennessee. Due to the potential coverage area following a disaster (which could include western North Carolina), the Watts Bar conducted an exercise to focus on potential affects involving the public, as well as agricultural industries.

16. COOP Communications Exercise: NCDA&CS conducted and participated in a COOP Alert Roster Drill as part of the state's annual exercise. The drill exercised all forms of communication: email, home/cell phone and VIPER radios where issued. This exercise proved capabilities to make contact to nearly 300 essential staff in less than two hours.

17. Local Exercises: EP staff participated and assisted on the planning committee for the Lee County Hurricane Exercise in June and the State's Great Flood Exercise in July.

EP facilitated the pet sheltering component for the Quake 2.0 All Hazards Regional Exercise as the ESF-11 coordinator for the Toe River Region. Exercise participation included the set-up, demonstration of a mobile CAMET and pet sheltering capacity and capability during the exercise

event by housing responder and volunteer animals for one operational period. Additionally during the Quake 2.0 exercise, EP staff served as operations section chief on the event IMT for one operational period during the exercise demonstrating the value of multi-hazard capability from an incident command perspective.

EP staff participated in an exercise series sponsored by Guilford County Emergency Management demonstrating the ability of managing disaster events remotely with the assistance of web-based technology to better share information and event status. These quarterly held exercises focused on the most common causes of activation in the local jurisdiction including flooding, winter storms, wind events and hazardous materials.

TEAMS, TASK FORCES, WORKGROUPS & COMMITTEES

18. Vector-borne Disease Workgroup: Organized by the Division of Public Health, this workgroup meets quarterly to discuss current trends in vector-borne diseases, such as West Nile Virus, Eastern equine encephalitis, Rocky Mountain spotted fever, Lyme disease and others. Participants include the Division of Public Health, NC Department of Environment and Natural Resources, NCDA&CS, NCSU CVM, NC Wildlife Resources Commission and others.

19. Public Health Preparedness and Response: The PHP&R branch of the NC Division of Public Health has four regional offices across the state which provide support for citizens and public health officials in their designated geographical regions; Eastern, Central, City Readiness Initiative, and Western. In 2013, EP staff members engaged with the PHP&R regional office teams and preparedness coordinators by participating in monthly or quarterly meetings and trainings. EP staff presented an overview of agricultural emergency preparedness and the NCDA&CS Emergency Programs Division at the NC Preparedness Conference in High Point on July 24, 2013.

20. NC Food Safety and Defense Task Force: EP staff members actively participate on this task force. The FSDTF meets bimonthly and is a multi-agency group consisting of representatives from multiple NCDA&CS divisions, NC DHHS, Division of Public Health, NC DENR, NCEM, USDA, FBI, FDA, NCSU and food industry representatives.

21. Emerging & Zoonotic Disease Workgroup: EP participates on this NC DPH-organized working group. Participants include: NC DPH, NCDA&CS, NC WRC, USDA Wildlife Services, NCSU CVM and NC Animal Rabies Control Association. This group meets quarterly to discuss zoonotic disease concerns in North Carolina.

22. State Emergency Response Team: The emergency operations center liaison is a member of the SERT and is the on-call person when the SERT is activated, or for after-hours incidents that affect NCDA&CS personnel. In addition, this person informs the NCDA&CS Executive Staff and Division Directors of on-going disaster and emergency issues. The SERT liaison is the point of contact for the NCDA&CS at the State EOC during events and exercises, and for emergency management issues affecting the Food and Ag Sector or Emergency Support Function 11.

23. State Emergency Response Commission: The EP director is a SERC commissioner appointed to serve in positions within the SERC subcommittee structure. One position involves serving on the Regional Response Team Advisory Committee. These regional teams respond to

hazardous material response requests within seven geographical regions. Another appointment is co-chair for Homeland Security Domestic Preparedness Regions' State Committee. The regions have become a focal group for identifying regional vulnerabilities through county risk assessments which will be used to determine the need for homeland security funding to address preparedness and response measures. The director serves on the Critical Infrastructure and Key Resources Working Group which is responsible for developing the state's CIKR plan. A recommendation was made in late 2013 for the SERC to organize a food and agriculture working group or sub-committee. The recommendation will be considered by the SERC in 2014.

24. NCEM State Training and Exercise Committee: EP represented NCDA&CS at all meetings of the NCEM State Training and Exercise Committee in 2013 to coordinate preparedness objectives across North Carolina. This committee allows NCDA&CS to integrate and coordinate departmental exercise objectives and training goals with multiple agencies including NCEM, NC DHHS, DPH, NC OEMS, NC DOT, University of North Carolina system universities and the NC National Guard for the betterment of statewide exercise and training planning.

25. NC Information Sharing and Analysis Center: The EP director serves as an appointed member of ISAAC Governance Board and has brought the food and agriculture perspective to this group. A staff veterinarian attends when an alternate is needed for these monthly meetings. ISAAC serves as the focal point for collection, analysis and dissemination of information on possible terrorist and criminal threats against North Carolina. Law enforcement agencies from across the state submit and exchange information on homeland security and gang activities. Experts at ISAAC will evaluate that information and share it with other appropriate agencies to follow up on these tips. Additional experts from NCDA&CS are included in specific discussions involving the ISAAC as needed.

26. NC Domestic Preparedness Regions: The Domestic Preparedness Regions were structured by State NCEM to develop and expand regional prevention, preparedness, response and recovery capabilities for all hazards, both man-made and natural. The DPRs coordinate interoperability needs and training within their regions. EP staff participate in their local DPR activities.

27. Military-Civilian Task Force for Emergency Response: EP staff participated in quarterly meetings with task forces at three of the four military bases in North Carolina: Fort Bragg, Cherry Point and Camp Lejeune. Additionally, an EP veterinarian conducted collaboration visits with the Army's regional public health veterinarian and Seymour Johnson Air Force Base's Public Health, Environmental, Emergency Management staff and Wayne County's health director and animal control director in response to some recent rabies exposure/contact events in the area surrounding the base. EP staff participated with Fort Bragg MCTFER on FEMA Virtual Table Top Exercises four times during the year including covering topics from HAZMAT incidents to earthquakes and bioterrorism.

28. Chemical, Biological, Radiological, Nuclear and Explosive Task Force: EP staff participates on the SERC's CBRNE task force along with personnel from NC Forest Service. This task force meets quarterly to engage, evaluate and develop recommended solutions to issues related to the State's CBRNE response capabilities. Status and recommendations are brought before the SERC for further actions as needed.

29. National Alliance of State Animal and Agricultural Emergency Programs: An EP veterinarian represents North Carolina serving as a board member for NASAAEP. This group mirrors the National Emergency Managers Association and provides a forum for states to address national, regional, state and local agriculture response and preparedness issues. EP provides two representatives to serve on the Best Practices Working Groups which include: Training Working Group, Disaster Veterinary Medicine Working Group and Planning/Resource Management Working Group. NASAAEP continues to meet by conference call monthly, organize a summit annually and document and share work done throughout the year by the working groups through a resources library housed on the alliance's website.

30. Southern Agriculture and Animal Disaster Response Alliance: SAADRA is an interactive network, involving states at risk from similar natural and disease disasters, created to further planning, mitigation, preparedness, response and recovery efforts related to animals and agricultural infrastructure. Government veterinarians from Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee and Texas continue to collaborate on issues that affect all member states. An EP veterinarian was one of the charter members and still represents North Carolina in this collaborative group. In 2013, SAADRA states shared resource lists that show what resources could be shared during a large scale event using the Emergency Management Assistance Compact through state EM organizations. Emergency Programs personnel also represented North Carolina and SAADRA at Government Coordinating Council meetings to share its experiences in previous events and the impact on agriculture's infrastructure. Recommendations were made to DHS and USDA on behalf of agriculture to better funding and response resources provided to farmers during natural disasters.

31. State Agricultural Response Team/Companion Animal Response Teams: Emergency Programs is a key SART member and is engaged with county teams known as CARTs. SART members include: state and local EM agencies, law enforcement agencies, NCSU CES, the NC Division of Public Health, the American Red Cross, local animal control, private veterinary practitioners, NC Farm Bureau and NCSU CVM.

32. Poultry Disease Advisory Committee: The Poultry Disease Advisory Committee is an advisory group set up by the Commissioner of Agriculture with oversight by the State Veterinarian. Active members are selected by, and serve at the pleasure of, the Commissioner. The committee is kept apprised of poultry diseases affecting our industry through regular communication by the director of the Veterinary Division Animal Health Programs-Poultry and meets quarterly or as needed. The meetings provide a forum to learn about disease outbreak control and mitigation strategies used within the industry

33. Secure Milk Supply: Foot and Mouth Disease, though not currently found in the United States, has the potential to greatly impact livestock and allied industries. Not only could it cause major losses of livestock, but the movement restrictions put into place to control spread of the disease could result in farmers not being able to get product to market. In the case of dairy farmers, whose product must reach the market in a short period of time; such movement restrictions could drive them out of business. The state veterinarians of Maryland, North Carolina, South Carolina, Tennessee and Virginia began working cooperatively to explore plans and procedures that could be agreed upon and implemented to keep milk moving to market in the event of an FMD outbreak. In 2013, Delaware and West Virginia joined this effort and New Jersey and Pennsylvania attended meetings. This effort could be important to keeping our dairy farms, processors, and allied industries in business during an outbreak. EP staff continue to

support this effort by participating in discussions of requirements and implementation of a regional SMS plan, including permitting needs.

34. Partnership for Food Protection, Interactive Information Technology Workgroup:

Established in 2008 by the FDA, the purpose of the PFP is to bring federal, state, local, territorial and tribal representatives with expertise in food, feed, epidemiology, laboratory, animal health, environment and public health together to develop an Integrated Food Safety System. The importance of this work was underscored by the 2011 passage of the Food Safety Modernization Act. The IIT WG supports the other workgroups of the PFP on matters of technology and works with federal, state and local representatives to assess technology offerings and needs and to provide guidance to food, feed and dairy programs. An EP programmer represents North Carolina on this workgroup. Current workgroup projects this cycle include: defining key data elements previously identified for food licensing and inspection systems to assist future system interoperability and data-sharing projects and setting up a table-top exercise to validate these key elements and their definitions.

35. Agricultural All Hazards Incident Management Team and Agricultural Emergency Response Team Development:



Emergency Programs continues to work with NCEM to develop IMTs and has a number of personnel that have been approved to serve on state IMTs in a variety of positions. Emergency Programs continued the effort to develop AERTs through webinar trainings as well as presentations at Emergency Management conferences/meetings. Additionally, a Homeland Security grant was secured that will allow the program to be further developed and brought to the local level in 2013/2014. Efforts to expand the volunteer base for the AERT program produced very important partnerships with Department of

Corrections and the NC Civil Air Patrol Cadet programs. Early in 2014, meetings with counties to further develop the program will occur as well as development of training materials and programs.

36. Nuclear Plant Task Forces: EP staff are members of four nuclear plant task forces that meet monthly to plan and prepare for radiological events. EP provides a point of contact to address the effects of such events on agriculture including embargo of contaminated food; on-farm sheltering of feed, water and livestock; and decontamination and sheltering of evacuated pets. In addition to these monthly meetings, EP staff served as agricultural subject matter experts for three nuclear power plant exercises during 2013 and, as such, conducted and participated in training events in advance of the one evacuation and two ingestion pathway exercises. Examples of these trainings include radiation basics and radiation sampling that were conducted by state personnel and two federal trainings conducted by the Federal Emergency Management Agency and the Federal Radiation Monitoring & Assessment Center. EP staff attended the Radiation Emergency Preparedness Planning Course and Radiation HAZMAT Technician Course.

SPECIAL PROJECTS

37. NC Foreign Animal Disease and Zoo Coordination Project: The purpose of this project, funded by USDA APHIS Animal Care, is to plan for an appropriate response to a FAD outbreak, such as avian influenza, involving unique captive avian collections in North Carolina, especially those that are open to the public, and to incorporate these collections into the NC Response and Containment Plan for Highly Pathogenic and Low Pathogenic Avian Influenza as an Annex. EP staff facilitated several planning meetings incorporating other partners (USDA APHIS VS, NCSU CVM, NCDA&CS Veterinary Division) and held individual meetings with key “special avian collections” stakeholders to gather input on major concerns to be addressed in the annex. Next steps include drafting the annex and conducting a workshop in June 2014 to host all of the key special avian collections stakeholders, and include local emergency management and public health officials, to review and revise the annex utilizing a FAD scenario

38. Animal Disease Outbreak Emergency Response Logistical Infrastructure – North Carolina Region: The purpose of the project is to determine whether or not animal carcasses could be safely transported during a Foreign Animal Disease outbreak and to determine whether rendering facilities and landfills could be utilized as safe biosecure disposal options.

In April 2013, a workshop was hosted by the Animal Disease Outbreak Emergency Response Logistical Infrastructure – North Carolina Region cooperative agreement in Des Moines, Iowa and hosted five other states that have large swine and dairy industries. The workshop incorporated all viewpoints on disposal of infected carcasses to include transport, rendering and land filling as well as gain a national perspective. Follow-up webinars were conducted to attain consensus of the items discussed during the meeting. EP staff continue to develop a white paper to discuss all of the pertinent information for the project. The project was presented at the EPA Decontamination Research and Development Conference held at RTP during November 2013. EP staff have developed a tool to be utilized during an outbreak; this tool is known as the disposal calculator and started as an excel spreadsheet. It has since become a web-based application that allows users to input data regarding number of animals to be disposed, location of the premise and location of the disposal site. The calculator then computes the amount of weight in need of disposal along with routing to the disposal facility, number of conveyances required and how many days to dispose of the material. This tool is being demonstrated in a variety of venues, one of which is an exercise with partners from Florida’s Department of Agriculture.

39. Co-Location Sheltering Assistance Visits: EP staff worked with Fort Bragg Emergency Management to coordinate and conduct sheltering assistance as well as advising plan updates for the post. These visits were conducted at the request of EM to aid in improving their human/animal co-location plans for events affecting military personnel on and off post. Ft. Bragg staff was supplied with education and evaluation forms allowing them to conduct their own visits with their Public Health and Animal Control staff. They continue to develop logistics materials to support further co-location sheltering operations including a future CAMET training for veterinary personnel on post.

40. Foam Depopulation: EP continues its role in the evaluation of effective foam depopulation using medium expansion foam. Training and exercises with industry personnel continued during the year and regular training continues on the foam equipment by Departmental personnel. From lessons learned during these events, changes continue to be made in the

hardware, equipment, supplies and procedures related to foam technology and other applications of the foam response resources. Foam pumps were outfitted with several new parts to prevent them from becoming inoperable due to components failing because of corrosion. Project work to identify nuances surrounding application of decontamination agents in poultry houses was conducted, using various methods of application such as mobile sprayers and misters.

41. State Homeland Security Grant Planning: The purpose of the State Homeland Security Strategy is to provide strategic direction for the State of North Carolina and its jurisdictions to prepare for, prevent, respond to, mitigate, and recover from, a catastrophic event, either natural or man-made. This is especially important for two distinct reasons: 1) the high frequency of natural disasters that occur in North Carolina and 2) the potential for future acts of terrorism. EP has maintained a Food and Agriculture Sector presence in the writing and priority setting for the SHSS. Emergency Programs has helped secure more than \$4 million dollars from State Homeland Security to build preparedness and response capabilities in the Food and Ag Sector.

42. National Incident Management Compliance Assistance Support Tool: EP ensured NCDA&CS' 2013 participation in the state and national effort to comply with all Homeland Security presidential directives through submittal of specific training and exercise information and data to the NIMSCAST process. The NIMSCAST information is updated at least quarterly for NCDA&CS and for exercises following after action review processes. This web-based self-assessment instrument for state, territorial, tribal and local governments is used to evaluate and report their jurisdictions' achievements of all NIMS implementation activities released since 2004.

43. DocuSign: DocuSign is the provider of cloud-based electronic signature technology that facilitates the exchange of documents and legal materials. The State chose DocuSign to accelerate government financial transactions and reduce costs. In March 2013, Emergency Programs was asked by NCDA&CS Information Technology Service Division to test the implementation of DocuSign for the department. Emergency Programs has been using DocuSign to simplify travel reimbursement approvals and expedite budget division authorization forms.

TECHNOLOGY

44. Enhancements to the GRID Implementation for Food & Drug: Food Firms and Feed Firms are web-based data management applications used by the Food and Feed Sections of the Food & Drug Protection Division to track and assign regulatory inspections. The applications track manufacturers, distributors, wholesalers and retailers operating in North Carolina and contain tools to manage inspections that keep our food supply safe for both humans and animals. Enhancements in 2013 incorporated the Grade "A" Milk program's inventory and inspectional program into the software. Positioned for an early 2014 roll out, this latest iteration of the combined firms database breaks

The screenshot displays the 'Milk Firms Tracking Database' web application. The interface features a top navigation bar with tabs for 'Home', 'Data', 'Task', 'Report', 'Management', and 'Logout'. Below this, there are links for 'Search', 'Advanced Search', 'Current Inspections', 'Pending Complaints', and 'Pending Letters'. The main content area is divided into several sections. The first section is titled 'Record of Milk Plant Equipment Test' and shows a dropdown for 'Vat Pasteurizer - Vat Pasteurizer #14'. Below this is a table with columns for 'Date', 'Vat', and 'Remarks'. The second section is titled 'Record of Laboratory Analysis - Raw' and includes a table with columns for 'Date', 'Temperature', 'Bacterial Count', 'CSO', 'Antibiotic Test', and 'Enforcement Action'. The third section is titled 'Record of Laboratory Analysis - Pasteurized' and includes a table with columns for 'Date', 'Temperature', 'Bacterial Count', 'CSO', 'Antibiotic Test', and 'Enforcement Action'. There are also links for 'Add New' and 'Add Inspection'.

down the data silos between Food, Feed, and Grade "A" Milk to allow for better data sharing between regulatory programs. With an upgraded file attachment system; this also represents the next step towards reducing paper record keeping for the division.

45. Implementation of the Generic Regulatory and Inspections Database for LP: In 2011, the State Auditor performed an audit of the Standards Division Liquefied Petroleum section inspection process. This audit identified needs for improvement in data management. At the time, LP was using a paper-based inspection system in conjunction with three Microsoft Access databases. During 2012, EP loaded this disparate data into one enterprise database and paired it with a new web-based interface. This Generic Regulatory and Inspections Database allows multiple users to simultaneously interact with and edit data, and it is secured by NCID. In GRID, entire inspections are captured in the database. Field staff now enter regulatory inspections from the field, and the client receives an email of the findings. This has reduced redundancy of data entry and errors of transcription. The inspection forms perform validation of much of the data in real time – ensuring accuracy and consistency.

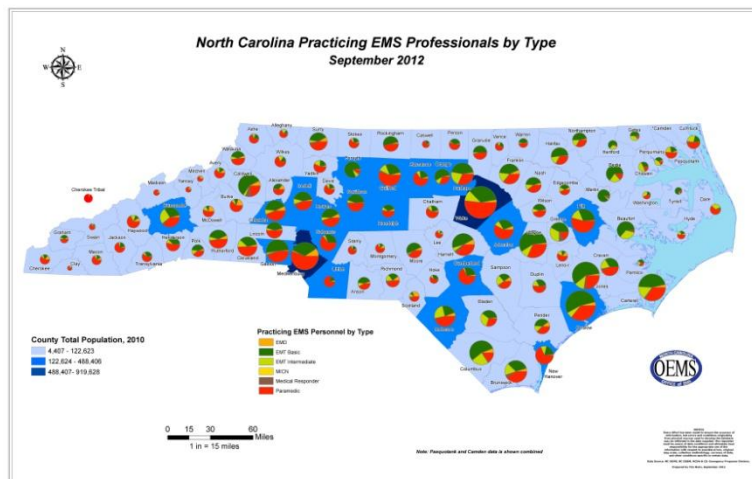
For GRID, 2013 was a year of iterative enhancements, problem resolution and behind-the-scenes refactoring to improve functionality and maintainability. The new version of LP's LPG-1B form was rolled out, to handle domestic and miscellaneous inspections. Tools for granting extensions and performing and tracking other administrative tasks were added. Automatic generation of warning, civil penalty, settlement, payment and transcription letters were released and then enhanced with additional streamlining of office tasks to significantly reduce staff hours required for the increased regulatory workload.

A follow-up to the 2011 audit by the Office of the State Auditor, showed a significant improvement in issuance and collection of penalties, all of which is processed and tracked through GRID. Also, because GRID automates the tracking of information and enforces accountability, LP's records and regulatory process could be audited in a way previously impossible or only possible through hours of investigation and data gathering.

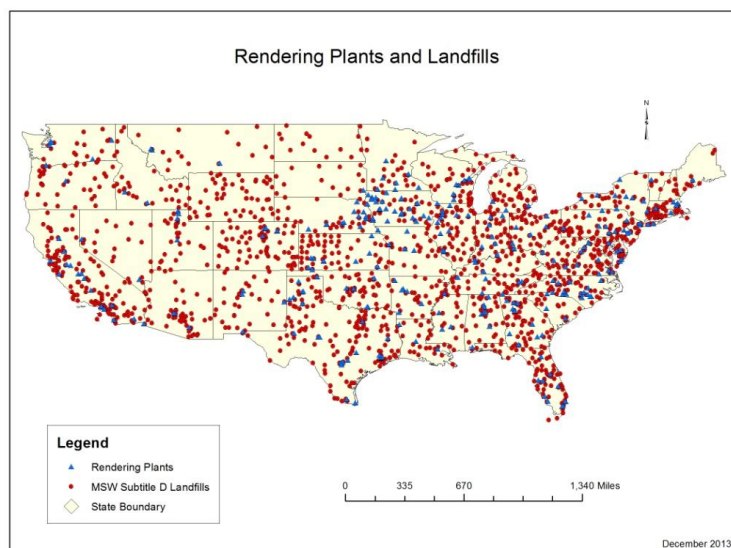
The LP-Gas Code is adopted by the state of North Carolina and receives updates every three years. 2013 was one of these years. GRID was designed with an eye towards future revisions of inspection forms. With new regulations coming into effect on January 1, 2014, the final two weeks of December were spent preparing for this roll out. Thanks to advanced planning and groundwork already laid, collaboration between EP and LP was able to rapidly spin these up and push the revised inspection forms, with accompanying changes to generated letters, out in time for their use. Were LP using commercial off-the-shelf software, these changes would have required months of lead way to contract them out and come at considerable cost to the department.

46. Biomass Disposal Calculator: The disposal calculator is a set of tools for managing the logistics and planning of the disposal of diseased animal carcasses. Initial screens are designed to find the premise location and determine the type and amount of biomass to be disposed. The disposal options screen is designed for holistically allocating landfills, renderers and burial sites until all biomass can be disposed in a sufficiently small time window. The logistics screen is designed for allocating vehicles for the transport of biomass from the premise location to the specified disposal options. It is currently still in development.

47. Carolina Practicing EMS Provider Assessment: To accurately assess the distribution of practicing EMS providers in North Carolina, thematic maps were created highlighting their location and specialization over a background of county population. This mapping effort entailed assembling provider locations, assembling and showcasing county census data, performing a spatial join of the data and displaying the EMS providers by vocation. These maps were used in a presentation to state and regional EMS decision makers to show distribution and need of these professionals across the state. Emergency Programs does the GIS for OEMS and completed this work as part of a grant deliverable.



48. Renderers and Subtitle D Landfills Mapped Nationwide: A deliverable for the Animal Disease Outbreak grant was to research, verify data sources and create an accurate nationwide GIS data layer of 1,650 Municipal Solid Waste Subtitle D Landfill sites. ISS staff compared and identified the best available information from a variety of data sources including US EPA Incident Waste Decision Tool, State Solid Waste Management Departments, reference USA, State Environmental Departments and State GIS Mapping portals.

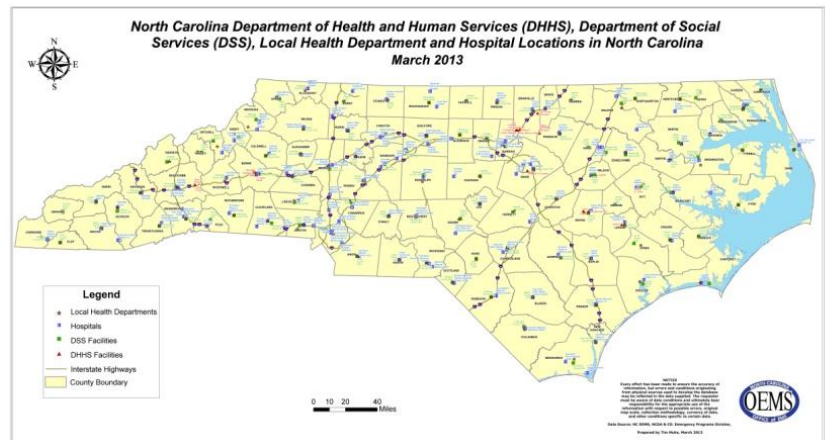


Additionally, a nationwide dataset of 250 rendering plant sites from a variety of data sources including the US EPA Incident Waste Decision Tool, rendering company websites, National Renderers Association and InfoUSA was created. The resulting dataset is the foundation of the animal disposal calculator and will be accessible in other federal applications including the USDA EMRS2 database.

49. Collected Statewide GIS Datasets for Parcel Ownership: In 2013, ISS collected parcel data from all 100 counties and standardized the attributes to create one statewide GIS dataset. This project represents about 160 man hours but saved significantly more time. With this dataset we can tell you who owns any piece of land in the state. We can also give you basic contact information like mailing addresses. This dataset was used for a variety of projects that included several divisions. This dataset is also shared with several other state agencies including EM, State Property, several divisions within the Department of Commerce, DOT and several users at DENR.

50. North Carolina Department of Health and Human Services (DHHS) Facility Maps:

In order to assist the DHHS secretary with performing a facility needs assessment, maps were created displaying facility locations by type. These maps will assist DHHS planners as they move forward with facility assessment and possible consolidation of resources. To accomplish this task, data was assembled and geocoded (address matched), maps of facilities were created, large maps were printed, laminated and delivered to DHHS staff.



51. Georeferencing datasets in the Multi-Hazard Threat Database: One of the major ISS accomplishments of 2013 was adding accurate latitude and longitude coordinates to all the data bases stored in the MTHD. In 2013 our GIS quality control data technician spent more than 500 hours matching addresses and doing quality control to get parcel level coordinates accurate for our facilities. MHTD datasets that were quality controlled this year included: agricultural owned lands, feed firms, municipal solid waste sites, Christmas tree farms, LP dispensers, gas stations, food firms and commercial dairy operations. The Food Firms Project garnered the most hours with 179 hours logged. Accurate coordinates mean we can map these facilities during events like hurricanes or winter storms and can ensure our response is well targeted.

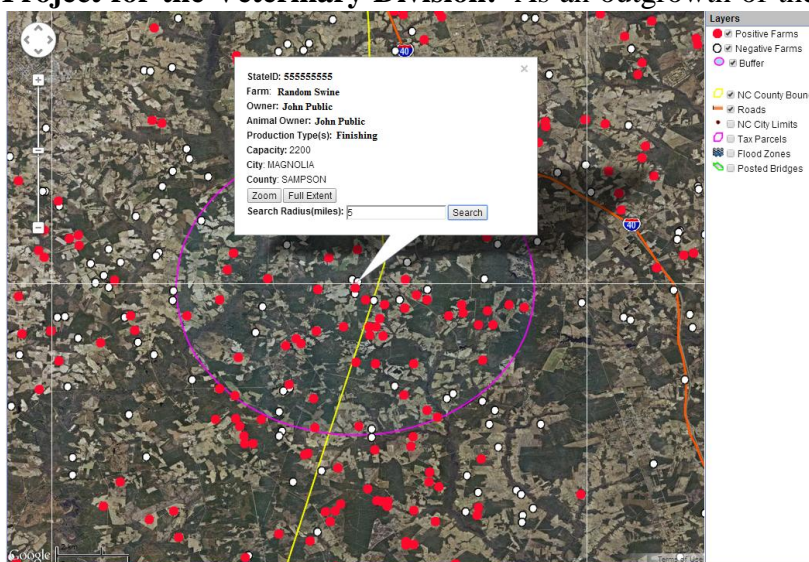
52. Farmer's Market Gatehouse Application: The gatehouse application is an online application for recording deliveries and stall rentals and other transactions at NCDA&CS-owned farmer's markets. The gatehouse application also produces various financial and status reports, as well as printable receipts. At the beginning of 2013 only the Raleigh State Farmers Market used the gatehouse application. Improvements were made to the database system so that it could be versatile enough for other markets to use as well. Adjustments and additions to fee calculation and new reports allowed it to be compatible with Asheville's Western NC Farmers Market and Greensboro's Robert G. Shaw Piedmont Triad Farmers Market. Web service additions allowed web access so that it could be used outside of Raleigh. It is currently in use by Raleigh, Greensboro, and Asheville markets.

53. Community Wildfire Protection Program Planning and Database Conversion: We are in the process of converting the Community Wildfire Protection Plan from a Microsoft Access application to a Web based application. The first step is to create and populate a SQL

server database. In the process the database structure has been transformed from a relatively flat system to a normalized structure which will eliminate most redundancy. Scripts were created to import data from 90+ copies of the CWPP from Access to SQL Server.



54. Swine Disease Mapping Project for the Veterinary Division: As an outgrowth of the PRRS mapping project, the Veterinary Division and swine industry partners requested mapping support for six swine diseases of interest. These diseases are not reportable under NC General Statute, but the industry asked for a way to share information and generate maps inclusive of data from all swine companies that participate. The Animal Health Programs database was modified to allow users to input data on disease status for affected premises and a map interface was created to support visual display of that information. This interface also includes a tool to buffer a selected farm and then download selected information on all farms within that buffer.



55. Hardware Virtualization: Emergency Programs' ISS section stores and maintains the hardware infrastructure that hosts and supports the Multi-Hazard Threat Database. Two goals this year were to virtualize physical hardware as it gets close to the end of its useful life. Instead of warranting these servers we are virtualizing them with VMware. Near the end of 2013, we virtualized our development web server, ArcGIS server and our development SQL database server. More servers will be virtualized in early 2014. This project relates to an effort to keep up with IT industry standards and best practices.

EQUIPMENT

56. Foreign Animal Disease Quarantine Rapid Deployment Equipment: EP staff members continue to maintain this equipment to a state of readiness for deployment in the event of an animal disease outbreak or events caused by natural disaster.

57. Maintain, Repair and Upgrade Department Equipment: Preventive maintenance and repairs were made on the following equipment: 7 foam pumps, 9 generators, 2 high pressure decontamination washers and trailers, 1 road tractor, 1 mobile command center, 3 heavy duty pick-up trucks, 3 sports utility vehicles, 1 cargo van, 1 water transfer unit including pump and associated equipment, 11 box and utility trailers and 64 PAPR battery packs (cycle and recharge). Based on age and use, much of the equipment required moderate maintenance and service, including battery replacement, charger upgrade, tire repair or replacement, oil changes and hardware additions.

58. Response Supplies and Equipment: EP ensured procurement, storage, inventory and maintenance of critical response supplies and personal protective equipment. The EP Division coordinates with other divisions to identify and quantify material and equipment needs. Placed material and equipment in appropriate response trailers, storage rooms, or warehouses throughout the state; provided specific materials and equipment upon request of departmental employees. Shelf life will be an issue in the next few years that will have to be addressed by finding funds for significant inventory replacement.

59. Voice Interoperability Plan for Emergency Responders Radio System: In the ongoing transition to Program 25 (P25), the 800 Mhz radio fleet (229 units) has been upgraded to accept the P25 shadow programming and all radios in the agency fleet have been loaded with necessary control channels to accommodate FCC mandated narrow banding of the system. Significant time has been spent working with the NC Forest Service to determine and build template architecture to assure complete interoperability with all divisions in NCDA&CS, and other agencies throughout the state. Each division of the Forest Service has unique needs in communication due to the close interaction with the counties within the divisions. The initiative includes specific programming related to the law enforcement activities with the Forest Service and Special Police at the N.C. State Fairgrounds to ensure reliable communications during large events such as the State Fair and NASDA to enhance the safety of the public, officers involved and visiting participants from throughout the United States and abroad. On several occasions selected radio templates have been tailored to specific events on short notice. This also included training on unit operations for individuals who do not normally use this equipment. We are currently entering the final phase of P25 and are working to have prepared templates that can be quickly loaded to the radios when the P25 system goes live. Properly executed this will provide a robust system well into the foreseeable future.

60. Interdivisional Support: EP staff supported other agencies and divisions by supplying equipment in the form of generators for the Got 2 B NC Festival and continued work in the promotion of disposal and decontamination technology in conjunction with the USDA, EPA and DHS.

61. Incident Material and Technical Support: EP staff provided technical assistance and/or material for the following incidents: event planning and exercise support for nuclear plant exercises to NC DHHS Radiation Protection Section and response technical support to Food and Drug Protection Division.

Glossary of Acronyms

AAR: After Action Review

AERT: Agricultural Emergency Response Team

AgEOC: Agriculture Emergency Operations Center

AHA: American Humane Association

AHIMT: All Hazards Incident Management Team

AHP: Animal Health Programs

AI: Avian Influenza

AVMA: American Veterinary Medical Association

CAMET: Companion Animal Mobile Equipment Trailer

CART: County Animal Response Team

CBRNE: Chemical, Biological, Radiological, Nuclear and Explosive Task Force

CE: Continuing Education

CIKR: Critical Infrastructure and Key Resources

CLU: Common Land Units

CRI: City Readiness Initiative

CWPP: Community Wildfire Protection Program

DENR: Department of Environment and Natural Resources

DHHS: Department of Health and Human Services

DHS: Department of Homeland Security

DPH: Division of Public Health

EM: Emergency Management

EMAC: Emergency Management Assistance Compact

EMS: Emergency Medical Services

EOC: Emergency Operations Center

EOP: Emergency Operation Plan

EP: Emergency Programs

EPA: Environmental Protection Agency

EPZ: Exposure Pathway Zone

ESF: Emergency Support Function

F&D: Food and Drug Division

FAD: Foreign Animal Disease

FADD: Foreign Animal Disease Diagnosticians

FASCAT: Food and Agriculture Sector Criticality Assessment Tool

FDA: US Food and Drug Administration

FDPD: Food and Drug Protection Division

FSDTF: NC Food Safety and Defense Task Force

FEMA: Federal Emergency Management Agency

FMD: Foot and Mouth Disease

FRMAC: Federal Radiological Monitoring and Assessment Center

FSA: Farm Service Agency

GAO: Government Accountability Office
GCC: Government Coordination Council
GIS: Geographic Information System
GPS: Global Positioning System
GRID: Generic Regulatory and Inspections Database
HSPD: Homeland Security Presidential Directives
Hurrevac: Hurricane Evacuation Software Program
IAP: Incident Action Plan
ICS: Incident Command System
IFARM: Integrated Food and Agriculture Resource Management
IIT WG: Interactive Information Technology Workgroup
IMT: Incident Management Team
IPZ: Ingestion Pathway Zone
ISAAC: Information Sharing and Analysis Center
ISS: Information Support Services
KMZ: Keyhole Markup Language Zipped
LP: Liquefied Propane
MCTFR: Military-Civilian Task Force for Emergency Response
MHTD: Multi-Hazard Threat Database
MHz: Megahertz
MOA: Memorandum of Agreement
MOU: Memorandum of Understanding
MPID: Meat and Poultry Inspection Division
MS: Microsoft
NARSC: National Animal Rescue and Sheltering Coalition
NASAAEP: National Alliance of State Animal and Agricultural Emergency Programs
NBIC: National Biosurveillance Integration Center
NC ARCA: NC Animal Rabies Control Association
NCDA&CS: North Carolina Department of Agriculture and Consumer Services
NC DENR: North Carolina Department of Environment and Natural Resources
NC DHHS: North Carolina Department of Health and Human Services
NC DOT: NC Department of Transportation
NC DPH: North Carolina Division of Public Health
NC EDPHA: North Carolina Eastern District Public Health Association Conference
NC EM: North Carolina Division of Emergency Management
NC EOP: North Carolina Emergency Operations Plan
NC FDEM: North Carolina Food Defense Event Management
NCFS: North Carolina Forest Services
NC OEMS: North Carolina Office of Emergency Medical Services
NC PHP&R: North Carolina Public Health Preparedness and Response
NCSU CALS: North Carolina State University College of Agricultural and Life Sciences
NCSU CES: NC State University Cooperative Extension Service

NCSU CVM: North Carolina State University College of Veterinary Medicine
NCSU OPD: North Carolina State University Office of Professional Development
NCVC: North Carolina Veterinary Conference
NCVRC: NC Veterinary Response Corps
NC WRC: NC Wildlife Resource Commission
NEMA: National Emergency Managers Association
NGO: Non-governmental Organization
NIMS: National Incident Management System
NIMSCAST: National Incident Management Compliance Assistance Support Tool
NRC: Nuclear Regulatory Commission
NVS: National Veterinary Stockpile
NVSL: National Veterinary Services Laboratories
OEMS: Office of Emergency Medical Services
PC: Preparedness Coordinator
PAPR: Powered Air-Purifying Respirator
PED: Porcine Epidemic Diarrhea
PPF: Partnership for Food Protection
PH: Public Health
PHP&R: Public Health Preparedness and Response
POC: Point of Contact
PPE: Personal protective equipment
PRRS: Porcine Reproductive and Respiratory Syndrome
RRT: Regional Response Team
RTP: Research Triangle Park
RYE: Realistic Yield Estimate
SAADRA: Southern Agriculture and Animal Disaster Response Alliance
SART: State Agricultural Response Team
SASDA: Southern Association of States Departments of Agriculture
SERC: State Emergency Response Commission
SERT: State Emergency Response Team
SERVNC: Statewide Volunteer Database Management System
SHSS: State Homeland Security Strategy
SMSS: State Medical Support Sheltering
SME: Subject Matter Expert
UNC: University of North Carolina
USDA: United States Department of Agriculture
VIPER: Voice Interoperability Plan for Emergency Responders
VTTX: Virtual Table Top Exercises
WebEOC: Web Based Emergency Operations Center